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1. Iniciar minikube y obtener los nodos

```
Windows PowerShell
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\Codelabs> minikube start
minikube v1.34.0 en Microsoft Windows 11 Home Single Language 10.0.26100.4351 Build 26100.4351
minikube 1.36.0 is available! Download it: https://github.com/kubernetes/minikube/releases/tag/v1.36.0
To disable this notice, run: 'minikube config set WantUpdateNotification false'

Using the docker driver based on existing profile
Starting "minikube" primary control-plane node in "minikube" cluster
Pulling base image v0.0.45 ...
Restarting existing docker container for "minikube" ...
Failing to connect to https://registry.k8s.io/ from inside the minikube container
To pull new external images, you may need to configure a proxy: https://minikube.sigs.k8s.io/docs/reference/networking/proxy/
Preparando Kubernetes v1.31.0 en Docker 27.2.0...
Verifying Kubernetes components...
  Using image gcr.io/k8s-minikube/storage-provisioner:v5
Complementos habilitados: storage-provisioner, default-storageclass
Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\Codelabs> kubectl get nodes
NAME      STATUS   ROLES    AGE     VERSION
minikube   Ready    control-plane 37d     v1.31.0
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\Codelabs>
```

1. Desplegar la aplicación

```
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\Codelabs> kubectl create deployment nginx-deploy --image=nginx
deployment.apps/nginx-deploy created
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\Codelabs> kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx-deploy-5fd7574f9f-ggws8  0/1     ContainerCreating  0           5s
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\Codelabs> kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx-deploy-5fd7574f9f-ggws8  1/1     Running    0           10s
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\Codelabs> kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx-deploy-5fd7574f9f-ggws8  1/1     Running    0           13s
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\Codelabs> kubectl expose deployment nginx-deploy --type=NodePort --port=80
service/nginx-deploy exposed
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\Codelabs> kubectl get services
NAME          TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)    AGE
kubernetes    ClusterIP   10.96.0.1     <none>         443/TCP    37d
nginx-deploy   NodePort    10.108.132.60 <none>         80:31232/TCP 4s
```

2. Accedo a nginx

```
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\Codelabs> minikube service nginx-deploy

NAMESPACE | NAME      | TARGET PORT | URL
-----
default   | nginx-deploy | 80          | http://192.168.49.2:31232

Starting tunnel for service nginx-deploy.

NAMESPACE | NAME      | TARGET PORT | URL
-----
default   | nginx-deploy | 80          | http://127.0.0.1:61421

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.
```

3. Escalar la aplicación

```
Windows PowerShell
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\CodeLabs> kubectl scale deployment nginx-deploy --replicas=3
deployment.apps/nginx-deploy scaled
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\CodeLabs> kubectl get pods
NAME                                READY   STATUS             RESTARTS   AGE
nginx-deploy-5fd7574f9f-b468j       0/1     ContainerCreating   0           3s
nginx-deploy-5fd7574f9f-ggws8       1/1     Running             0           6m8s
nginx-deploy-5fd7574f9f-rtz74       0/1     ContainerCreating   0           3s
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\CodeLabs> kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
nginx-deploy-5fd7574f9f-b468j       1/1     Running   0           10s
nginx-deploy-5fd7574f9f-ggws8       1/1     Running   0           6m15s
nginx-deploy-5fd7574f9f-rtz74       1/1     Running   0           10s
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\CodeLabs> |
```

4. Eliminar todo

```
Windows PowerShell
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\CodeLabs> kubectl delete service nginx-deploy
service "nginx-deploy" deleted
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\CodeLabs> kubectl delete deployment nginx-deploy
deployment.apps "nginx-deploy" deleted
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\CodeLabs> minikube stop
🛑 Stopping node "minikube" ...
🔴 Apagando "minikube" mediante SSH...
🔴 1 node stopped.
PS C:\Users\SHP\OneDrive\Escritorio\Carpetas\Universidad\Septimo semestre\Desarrollo III\CodeLabs> |
```